# Meade® Illuminated Reticle Eyepiece Systems

## Wireless and corded models, each with advanced features, to suit any observing requirement.

These special-purpose eyepieces include reticles with etched crossline patterns, internally red-illuminated so that the lines are clearly visible against a dark sky. All eyepieces are 1.25" O.D.

**Series 4000 Plössl 9mm Illuminated Reticle Eyepiece:** The most advanced commercially-available illuminated reticle eyepiece, this Series 4000 Plössl 9mm model includes micrometric x-y positioning controls which greatly facilitate locking onto the guide star: turn the finely-threaded controls and place the reticle's crossline pattern precisely at the desired position in the field. The sharp, high-power imaging of the 4-element, multi-coated Plössl optical system is complemented by a rubber eyecup (foldable for eyeglass wearers) that shuts out distracting stray light from the observer's eye. The upper (lens) section of the eyepiece rotates on a fine thread for precise diopter adjustment to the user's eye. Reticle pattern is a double crossline with two concentric circles.

*Wireless Model:* The Series 4000 Plössl 9mm Wireless Illuminated Reticle Eyepiece includes a red LED illuminator, operated from internal batteries, with variable brightness control; batteries are included with each eyepiece.

*Corded Model:* The same eyepiece as above, but with 6 ft. cord and connector for direct plug-in to the control panels of Meade LX200, LX200GPS, and ED/APO telescopes. Separation of the power source and eyepiece permits reticle brightness adjustments to be made during an exposure without risk of vibrating the telescope. Red LED brightness control is effected from the telescope's hand controller or control panel.

**Modified Achromatic 12mm Illuminated Reticle Eyepiece:** The MA 12mm Illuminated Reticle Eyepiece includes a 3-element, fully-coated MA optical system with good eye relief, diopter adjustment, and double crossline reticle. An excellent, lower-cost alternative to the Series 4000 Plössl 9mm model, above.

*Wireless Model:* Includes red LED illuminator, variable brightness control, and internal batteries.

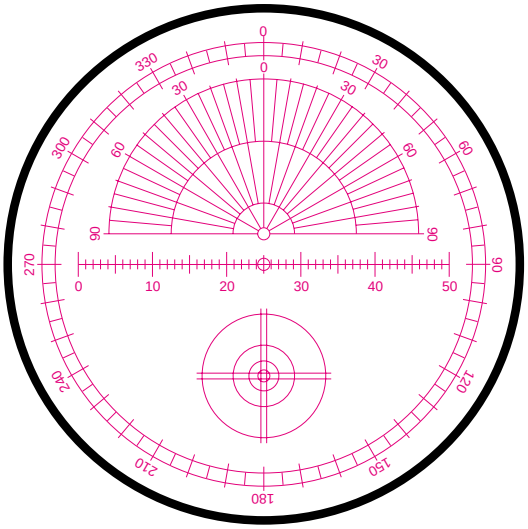
*Corded Model:* With 6 ft. cord and connector for the control panels of Meade LX200, LX200GPS and ED/APO telescopes.

**Meade Illuminated Reticle Guiding Eyepieces:**
*(left)* Plössl 9mm; *(below)* MA12mm.

**Modified Achromatic 12mm Illuminated Reticle Astrometric Eyepiece (1.25"):** A high-precision eyepiece for a wide range of astronomical measurements, the Meade MA12mm Astrometric Eyepiece is an important tool for the advanced amateur. The laser-etched reticle *(below)* is evenly illuminated by an internal red LED, with illumination intensity variable from bright to faint. Four types of measuring scales are included, for measuring double star angular separations, position angles, planetary diameters, and lunar crater diameters, as well as many other useful astronomical measurements. Included also is a double-crossline scale for long-exposure photo-guiding, making the Meade Astrometric Eyepiece truly an all-purpose illuminated reticle system.

The 3-element Modified Achromatic optical system yields sharp images across the full field of view; optics are coated for increased light transmission. The eyepiece's diopter adjustment allows for sharp focusing of the reticle to the observer's eye, and a rubber eyecup (foldable for eyeglass wearers) shields the eye from extraneous light.

The MA12mm Astrometric Eyepiece is supplied complete with wireless illumination control and internal batteries.

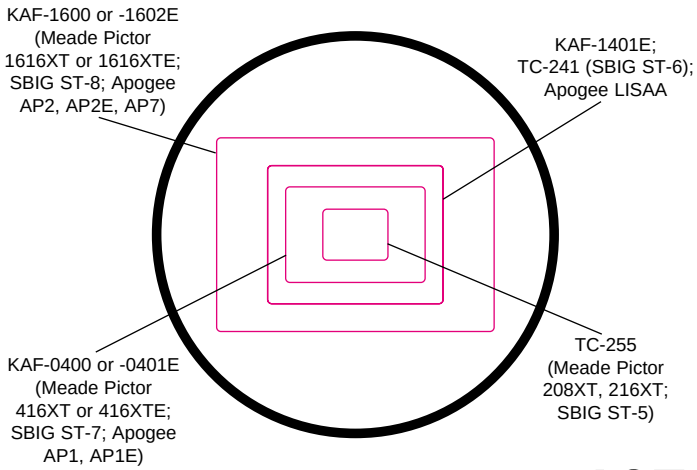



**The Meade MA12mm Astrometric Eyepiece** includes four precision scales for a wide range of astronomical measurements.

**Plössl 25mm Illuminated Reticle CCD Framing Ocular (1.25"):** Because of the relatively small dimensions of the microchips used in CCD imaging systems, composing the astronomical image (*i.e.,* confirming the object's orientation and size relative to the chip orientation and dimensions and centering the object on the chip) can be a challenging issue, particularly in cases of faint diffuse objects. This task is facilitated with the Meade Plössl 25mm Framing Ocular. The Framing Ocular can be used in either of two ways: *(a)* by placing it in the telescope's eyepiece-holder, after which the Framing Ocular is replaced with the CCD camera; or *(b)* in conjunction with a flip-mirror device *(e.g., see p. 105).* The ocular displays in evenly-illuminated red LED light the rectangular frames of all popular CCD chip sizes, including all Meade Pictor Series CCD imagers, as well as the ST-5 through ST-8 and other imager brands. A lockable spacer ring fixes eyepiece focus, so that the focus of the eyepiece and the CCD imager can be made precisely parfocal.

The Plössl 25mm Framing Ocular includes a 4-element coated optical system with 50° apparent field; foldable rubber eyecup; wireless illuminator with variable illumination control; and internal batteries.

**The Plössl 25mm Framing Ocular** facilitates the composition of celestial objects on the CCD chip.


KAF-1600 or -1602E (Meade Pictor 1616XT or 1616XTE; SBIG ST-8; Apogee AP2, AP2E, AP7)
KAF-1401E; TC-241 (SBIG ST-6); Apogee LISAA
KAF-0400 or -0401E (Meade Pictor 416XT or 416XTE; SBIG ST-7; Apogee AP1, AP1E)
TC-255 (Meade Pictor 208XT, 216XT; SBIG ST-5)